

# Weatherization Grantee Health and Safety (H&S) Plan- *Optional Template*

## **State of Hawaii Department of Labor and Industrial Relations – Office of Community Services**

### 1.0 – GENERAL INFORMATION

Additional information that does not fit neatly in one of the other sections of this document.

Enter Additional H&S Information Here

### 2.0 – BUDGETING

*Grantees are encouraged to budget H&S costs as a separate category and, thereby, exclude such costs from the Average Cost Per Unit (ACPU) cost limitation. This separate category also allows these costs to be isolated from energy efficiency costs in program evaluations. H&S costs that are budgeted and reported under the Program Operations category rather than the H&S category, the related H&S costs must be included in the calculation of the ACPU and cost-justified through the Grantee's Department of Energy (DOE)-approved energy audit tool.*

Select which option used below.

Separate H&S Budget ☐

Contained in Program Operations ☒

### 3.0 – H&S EXPENDITURE LIMITS

*Pursuant to [10 CFR 440.16\(h\)](#), Grantees must establish H&S expenditure limits for their Program and provide justification for those limits by explaining the basis and related historical H&S expenditures. DOE acknowledges that it may be necessary for Grantees to deviate from historical expenditures when certain circumstances arise (e.g., funding source changes).*

*[10 CFR 440.16\(h\)\(2\)](#) dictates that these limits must be expressed as a percentage of the ACPU. To calculate this percentage, use the following formula:*

$$\text{Total Average H\&S Cost per Unit} = \frac{\text{H\&S budget amount}}{\text{Program Operations budget amount}}$$

*For example, if the ACPU is \$5,000 and a Grantee's Program expends an average of \$750 per dwelling on energy-related H&S measures, the Total Average H&S Cost per Unit would equal 15 percent. DOE acknowledges that this percentage may vary significantly between Grantees due to different geographical areas and depending upon the availability of other funding sources, resource availability, etc. Low percentages should include a statement of what other funding supports H&S costs, while larger percentages will require greater justification and relevant historical support.*

*15 percent is not a maximum limit on H&S expenditures. DOE will conduct a secondary level of review on H&S Plans with a Grantee request of more than 15 percent of Program Operations used for H&S purposes. **DOE strongly encourages using the table below in developing justification for the requested H&S budget amount.** In accordance with [10 CFR 440.18\(d\)\(15\)](#), these funds are to be*

*expended by the Program in direct weatherization activities, “of which is necessary before, or because of, installation of weatherization materials.” This same section of the regulation excludes the H&S costs from the ACPU limitation if H&S costs are budgeted separately.*

*DOE recommends reviewing recent budget requests and compare those to actual H&S expenditures to see if previous budget estimates have been accurate. The resulting Total Average H&S Cost per Unit multiplied by the Grantee’s production estimate in the Annual File should correlate to the H&S budget amount listed in the Grantee’s annual plan.*

#### **H&S expenditure limits and justification explaining the basis for setting the limits.**

**Utilizing the spreadsheet embedded below, provide a full list of H&S measures using historical data from your program, including average cost, and frequency rate. If installing more than a single instance of one measure in a unit (e.g. multiple CO alarms), Grantees may aggregate costs so that frequency does not exceed 100%, or enter a justification into the measure column, which explains why that measure has a frequency rate of over 100%. The spreadsheet will auto calculate your expected Total Average H&S Cost per Unit.**

**Instructions: Double-click icon directly below to open, view and edit Measure Matrix Spreadsheet. Complete the spreadsheet by entering the required information. To save, close the spreadsheet and it will save to this document.**

## **4.0 – INCIDENTAL REPAIR MEASURES**

*Any measures that could potentially be identified as H&S, but the Grantee chooses to instead identify and treat those measures as incidental repair measures (IRMs), must be implemented consistently throughout the Grantee’s weatherization program. The measure must fit the regulatory definition of an IRM and be cost justified along with the associated energy conservation measure and/or package of measures. [10 CFR 440.3](#) defines Incidental Repairs as, “those repairs necessary for the effective performance or preservation of weatherization materials.”*

#### **H&S measures identified and treated as IRMs within your Program.**

Incidental repairs necessary for installation of weatherization measures are NOT considered H&S, but will be added to the cost of the efficiency measure and included in the calculated savings to investment ratio (SIR). Such repairs include, but are not limited to:

- Protective covering for exterior hot water tanks installed by DOE WAP
- Repair of walls or window frames for room A/C installation
- Minor roof repair for solar hot water collector installation
- Sealing and weather-stripping to prevent air leakage from conditioned rooms to unconditioned spaces

## **5.0 – OCCUPANT PRE-EXISTING OR POTENTIAL HEALTH CONDITIONS AND HAZARD IDENTIFICATION AND NOTIFICATION FORM(S)**

*Grantees must develop a written policy that includes, at a minimum, the following documentation relating to H&S Plan implementation and maintain signed copies in each client file. Each notification must include the occupant(s) (and landlord if applicable) name and address, be signed and dated by the occupant (and landlord if applicable) indicating that they understand and have been informed of their rights and options and signed by the Subgrantee personnel collecting the information.*

*Required topics are:*

▪ **Occupant Pre-existing or Potential Health Condition Screening**

- Provides documentation that allows occupant(s) to self-report known or suspected health concerns as part of initial application for weatherization, during the energy audit, or other part of the weatherization process as specified. Must minimally contain the following:
  - Any known risks associated with the measures and materials being installed
  - Subgrantee point of contact information for occupant(s)
  - Date of screening

▪ **Hazard Identification Notification**

- Provides documentation that the occupant and landlord (if applicable), have been informed of any potential hazards identified during the energy audit or intake process. Must minimally contain the following:
  - Date(s) of the energy audit/assessment and when the occupant(s) (and landlord, if applicable) was informed of a potential H&S issue
  - A clear description of the problem, including any testing results
  - A statement indicating if, or when weatherization could continue

**Radon Informed Consent Form**

- Provides documentation that the occupant(s) (and landlord if applicable) have been informed of any potential hazards associated with radon in weatherized dwellings. The form must minimally contain the following:
  - An explanation on the potential small risk of increasing radon levels when building tightness is improved. This is based on the results of the [Buildings Assessment of Radon Reduction Interventions with Energy retrofits Expansion Study \(The BEX Study\)](#)
  - A list of precautionary measures WAP will install based on [EPA Healthy Indoor Environment Protocols](#).
  - Some of the benefits of Weatherization including energy savings, energy cost savings, improved home comfort, and increased safety.

**Procedure for soliciting occupants' health and safety concerns related to components of their homes**

During application intake or home assessment/audit, subgrantees will determine if a person's health may be at-risk and/or the work activities could constitute a health or safety hazard. The occupant at-risk will be required to take appropriate action based on severity of risk. Failure or the inability to take appropriate actions must result in a deferral. Failure or the inability to take appropriate actions must result in a deferral.

At the time of application or during the home assessment/audit, the occupant must complete a "Client Health Survey" identifying potential health issues of the applicant and all occupants of the dwelling. This survey will be inserted into the client file for future reference. The information collected during this process will be used to aid in determining the best material and course of action for the weatherization process. When an occupant's health is fragile and/or work activities would constitute a health or safety hazard, the occupant(s) at-risk will be required to leave the home during work activities. If the occupant is unable to leave the home and the intended work may exacerbate an occupant's health condition, the home may need to be deferred.

**Procedure for determining whether occupants suffer from health conditions which may be negatively impacted by the act of weatherizing their dwelling**

Occupants at-risk will be asked to leave the home during weatherization work to make sure weatherization work does not make health conditions worse. If at-risk occupants cannot be relocated during weatherization work, then the home will be deferred. Training will be provided on how to assess occupant pre-existing conditions and determining course of action is required.

**Procedure for addressing potential health concerns including pre-existing health conditions when they are identified**

Subgrantees will have the occupant complete a "Client Health Survey" and inform the occupant in writing of any known risks. The subgrantees will provide the occupant with subgrantee point of contact information. Occupants at-risk will be asked to leave the

home during weatherization work to make sure weatherization work does not make health conditions worse. If at-risk occupants cannot be relocated during weatherization work, then the home will be deferred. Training will be provided on how to assess occupant pre-existing conditions and determining course of action is required.

Location where forms have been uploaded/submitted	
Separate attachment to SF424 <input type="checkbox"/>	Separate attachment to H&S Plan <input checked="" type="checkbox"/>

## 6.0 – HEALTH AND SAFETY CATEGORIES

*For each of the following H&S categories identified by DOE in the following tables, follow the directions below.*

- Any section that is “Required” below must be explicitly detailed in the H&S Plan regardless of funding source used. If the Grantee checks the box for “Concurrence with DOE Guidance” the contents of the box may be left as it exists or reference the section/location within Grantee Policy and Procedure manual that contains language or insert Grantee specific language. If the “Alternative Guidance” box is checked, the Grantee must provide that alternative guidance in the box.
  - If a Grantee is proposing an alternative action/allowability for a “Required” item, the alternative requires comprehensive explanation of how it meets the intent of the DOE program notice.
  - If a “Required” item/category will not be addressed with any funding source and will always result in deferral, the H&S Plan must state that.
- Any section that is “Allowable” below must be detailed only if DOE WAP funds are used to implement the measures. If the Grantee uses DOE funds for any “Allowable” activities from the Table of Issues then they must be described here in detail, including defining “minor”, “major”, “limited”, “case-by-case”, and “at-risk” if the term is applied. If you only check the box “Allowed with Alternative Funds” then no additional information is required.
- Any section that is “Prohibited” below may not be addressed with DOE WAP H&S funds and does not need to be specifically addressed in the H&S Plan. The Grantee simply needs to check the “Concur with DOE guidance” box and indicate if the condition will result in deferral/referral.
- The Grantee H&S Plan may address additional H&S hazards specific to their program that are not included in the Table of Issues. If a Grantee chooses to include additional measures as DOE WAP funded H&S costs, the H&S Plan must include details pertaining to the measures allowed, testing required, and client education for these specific hazards.
- All required “Testing/Inspection” related items must be documented in the client file to verify completion and results.

## 6.1 – Air-Conditioning, Heating Systems, and Combustion Appliances

### Required Actions

Concur with DOE Guidance ☒

Alternative Guidance ☐

Results in Deferral/Referral ☐

DOE WAP H&S Funds ☒

Alternative Funds ☐

There will be no heating system replacement, repair, or installation with DOE funds as there are no heating systems in grantee's territory.

Room air conditioners are small packaged air conditioning units installed in windows or an exterior wall. All room air conditioners have an energy efficiency rating (EER), which is computed by dividing cooling capacity, measured in btu's per hour by the watts of power used. The federal government requires all air conditioners to carry a yellow energy label listing cost-of-operation, including the EER. The higher the EER, the more efficient the air conditioner and the lower its operating cost. Under Hawaii's WAP, existing units with a maximum EER of 9.7 are eligible for replacement. Replaced units will be disposed of according to the environmental standards in the Clean Air Act 1990, Section 608, as implemented by 40 CFR 82 (7/1/2006). Materials shall be disposed of by an EPA-approved section 608 type I or universal certified contractor/vendor, and so noted in the file. Disposed units will be recycled when possible.

If repair/replacement is beyond the project scope of DOE either for efficiency or health and safety reasons, the client will be notified in writing by the "Weatherization Deferral/Referral" form, and, if possible, referred to local agencies that could assist. When serious electrical hazards, gross overloads, or electrical wiring exposure are present, the energy auditor shall notify the owner and defer the proposed installation of weatherization measures in the unit until such hazards are remedied.

### Allowable Actions

Allowed with DOE WAP H&S Funds ☒

Allowed with Alternative Funds ☐

### Prohibited Actions

Concur with DOE Guidance ☒

There will be no heating system replacement, repair, or installation with DOE funds as there are no heating systems in Hawaii.

### Required Testing/Inspection

Concur with DOE Guidance ☒

Alternative Guidance ☐

WAP auditors/assessors will test any existing room air conditioner to determine if it is operable and performing. If it is a replacement room A/C unit that meets the criteria of the priority list will be installed.

### Grantee Combustion Testing Action Levels

Conduct combustion appliance testing and visual inspection of all combustion appliances and their related venting.

### Grantee Woodstove & Fireplace inspection/testing policy including actions/limits

Concur with DOE Guidance ☒

Alternative Guidance ☐

Fireplace or woodstove venting that is left operational after weatherization must meet current local or national standards or the home must be deferred.

### Required Occupant Education

Concur with DOE Guidance <input checked="" type="checkbox"/>	Alternative Guidance <input type="checkbox"/>
Auditors/Assessors will provide client education on appropriate operation and maintenance of A/C units. An operation manual and any warranty information will be left with the client. Subgrantees will provide all paperwork and manuals for any equipment installed by weatherization.	

## 6.2 – Asbestos (Confirmed and/or Presumed Asbestos Containing Material)

### Required Actions

Concur with DOE Guidance <input checked="" type="checkbox"/>	Alternative Guidance <input type="checkbox"/>	Results in Deferral/Referral <input type="checkbox"/>
DOE WAP H&S Funds <input checked="" type="checkbox"/>	Alternative Funds <input type="checkbox"/>	

Any surfaces to be altered in the weatherization process shall be inspected for asbestos prior to alteration. Crews and contractors must work around any asbestos-containing material. Testing or abatement of asbestos is not an allowable H&S expense. If asbestos is present in any area which will be disturbed during weatherization, the client must provide documentation that the asbestos removal or encapsulation was conducted by a certified professional before the home is eligible for weatherization. Clients shall be instructed not to disturb any suspected surface and given the EPA pamphlet “Asbestos in the Home, a Homeowners Guide.”

Work will be deferred if WAP crews are unable to perform weatherization due to the presence of asbestos. If possible, clients will be referred to other possible non-profit community agencies, referral services and private contracts who are licensed and have expertise to perform asbestos removal. No asbestos removal work will be performed.

DOE WAP funding will not be used for testing or removal of vermiculite. The presence of vermiculite in Hawaii is unlikely as we do not look in attics. Hawaii does not perform any insulation, air sealing, or blower door testing. All measures are baseloads. However, auditors/assessors will be trained to recognize vermiculite and notify client of its presence. If vermiculite is present in a dwelling and weatherization work would disturb it, the client will be notified and instructed not to disturb any suspected surface. The client will also be given the EPA pamphlet “Asbestos in the Home, a Homeowners Guide.” The unit would be deferred until the vermiculite is removed and client is able to provide documentation that a certified professional performed the remediation before weatherization work continues. WAP crews will take precautionary measures, such as not disturbing the vermiculite and using proper respiratory protection while in areas containing vermiculite. Testing or abatement of asbestos is not an allowable H&S expense.

### Grantee ACM policy

No weatherization work will occur that could possibly disturb the material. If possible, the client will be referred to local agencies if vermiculite is present.

Auditors will be required to take an Asbestos Hazard Emergency Response Act (AHERA) course to be able to identify asbestos-containing materials and when it may pose a hazard to clients or workers.

### Grantee Blower Door Testing Policy When Suspected ACM Exists

Hawaii does not perform any insulation, air sealing, or blower door testing. All measures are baseloads. However, auditor/assessors will be trained to recognize vermiculite and notify clients of its presence. DOE WAP funding will not be used for testing or removal of vermiculite. If vermiculite is discovered, the client will be notified and instructed not to disturb the material.

### Allowable Actions

Allowed with DOE WAP H&S Funds <input checked="" type="checkbox"/>	Allowed with Alternative Funds <input type="checkbox"/>
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If any asbestos is identified, auditors/assessors will notify and instruct the client not to disturb the suspected surface. Auditors/assessors will inform the client in writing of asbestos hazard identified, and the client will be deferred until they can provide documentation that asbestos removal or encapsulation was conducted by a certified professional before the home is eligible for weatherization.

### Prohibited Actions

Concur with DOE Guidance <input checked="" type="checkbox"/>
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Using DOE WAP funds for general abatement/removal or replacement of asbestos siding, thermal system insulation (TSI) or Transite, or vermiculite.		
<b>Required Testing/Inspection</b>		
Concur with DOE Guidance <input checked="" type="checkbox"/>	Alternative Guidance <input type="checkbox"/>	Results in Deferral/Referral <input type="checkbox"/>
DOE WAP H&S Funds <input checked="" type="checkbox"/>	Alternative Funds <input type="checkbox"/>	
Visually inspect all surfaces (i.e., walls, floors, ceilings, roofs) for suspected ACM prior to drilling or cutting. Assume asbestos is present in suspect materials unless testing reveals otherwise.		
<b>Allowable Testing/Inspection</b>		
Allowed with DOE WAP H&S Funds <input checked="" type="checkbox"/>	Allowed with Alternative Funds <input type="checkbox"/>	
If asbestos is present in any area which will be disturbed during weatherization, the asbestos must be remediated prior to weatherization work using non-DOE funds.		
<b>Required Occupant Education</b>		
Concur with DOE Guidance <input checked="" type="checkbox"/>	Alternative Guidance <input type="checkbox"/>	
<ul style="list-style-type: none"> <li>Formally notify the occupant, and landlord if applicable, in writing:             <ul style="list-style-type: none"> <li>of suspected ACMs that are present and what precautions will be taken to ensure the occupants' and workers' safety during weatherization;</li> <li>of results if testing was performed;</li> <li>not to disturb suspected ACM;</li> <li>When deferral is necessary due to asbestos, occupant, or landlord if applicable, must provide documentation that a certified professional performed the remediation before work continues.</li> </ul> </li> </ul>		

<b>6.3 – Biologicals and Unsanitary Conditions</b>		
<b>Required Actions</b>		
Concur with DOE Guidance <input checked="" type="checkbox"/>	Alternative Guidance <input type="checkbox"/>	Results in Deferral/Referral <input type="checkbox"/>
DOE WAP H&S Funds <input checked="" type="checkbox"/>	Alternative Funds <input type="checkbox"/>	
Deferral where conditions (odors, bacteria, raw sewage, rotting wood, etc.) in the home pose a health risk to occupants and/or weatherization workers or may be worsened by weatherization activities (e.g., air sealing) and will not be resolved by weatherization.		
Remediation of conditions that may lead to or promote biological concerns and unsanitary conditions is allowed. Addressing bacteria and viruses is not an allowable cost. Deferral may be necessary in cases where a known agent is present in the home that may create a serious risk to occupants or weatherization workers. DOE funds may be used to remediate conditions that may lead to or promote biological concerns or unsanitary conditions. This would typically be a plumbing leak or water drainage under a home. Disposal of all moisture damaged materials must be in accordance with DOE mold guidance. If the issue is beyond the scope of DOE WAP, client will be asked to correct problem or will be deferred to other agencies who may be able to assist. Deferral may be necessary in cases where a known agent is present in the home that may create a serious risk to occupants or weatherization workers.		
<b>Allowed Actions</b>		
Allowed with DOE WAP H&S Funds <input checked="" type="checkbox"/>	Allowed with Alternative Funds <input type="checkbox"/>	
DOE funds may be used to remediate conditions that may lead to or promote biological concerns or unsanitary conditions. This would typically be a plumbing leak or water drainage under a home.		
<b>Required Testing/Inspection</b>		
Concur with DOE Guidance <input checked="" type="checkbox"/>	Alternative Guidance <input type="checkbox"/>	Results in Deferral/Referral <input type="checkbox"/>
DOE WAP H&S Funds <input checked="" type="checkbox"/>	Alternative Funds <input type="checkbox"/>	
Sensory inspection of interior, exterior, attics, and subspaces of the dwelling.		
<b>Prohibited Testing/Inspection</b>		
Concur with DOE Guidance <input checked="" type="checkbox"/>		



Using DOE WAP funds for any testing/evaluation of structural materials by a third-party.	
<b>Required Occupant Education</b>	
Concur with DOE Guidance <input checked="" type="checkbox"/>	Alternative Guidance <input type="checkbox"/>
Inform occupant in writing of observed biological and unsanitary conditions.	

6.4 – Building Structure and Roofing (e.g., roofing, wall, foundation)		
Allowable Actions		
Allowed with DOE WAP H&S Funds <input checked="" type="checkbox"/>	Allowed with Alternative Funds <input type="checkbox"/>	
Building structure and major roofing repairs are not allowable. Minor roof repairs and construction of enclosures to protect and preserve DOE WAP installed hot water tanks will be allowed, but this will be included in the installation cost of the measure and must meet the SIR. If the repairs and installation cost cannot meet the SIR for the weatherization measure, the unit will be deferred. Homes with building structure, major roofing repairs, or require more than minor repairs are not allowable with DOE funds and must be deferred. WAP auditors/assessors will ensure that access to areas necessary for weatherization is safe for entry and performance of assessment, work, and inspection. Building structure and major roofing repairs are not allowable. There will be no removal or disposal of structural or roofing materials.		
Prohibited Actions		
Concur with DOE Guidance <input checked="" type="checkbox"/>		
Major repairs and building rehabilitation are not allowable with DOE funds.		
Define “major” repairs		
“Major” repairs are defined as a repair exceeding the projected average cost per unit during the given program year.		
Required Testing/Inspection		
Concur with DOE Guidance <input checked="" type="checkbox"/>	Alternative Guidance <input type="checkbox"/>	Results in Deferral/Referral <input type="checkbox"/>
DOE WAP H&S Funds <input type="checkbox"/>	Alternative Funds <input type="checkbox"/>	
Visual inspection of building structure and roofing for damages that compromise building durability and to verify that portions of the home where weatherization will occur are safe for entry and performance of assessments, work, and inspections.		
Allowable Testing/Inspection		
Allowed with DOE WAP H&S Funds <input checked="" type="checkbox"/>	Allowed with Alternative Funds <input checked="" type="checkbox"/>	
Visual inspection of building structure and roofing for damages that compromise building durability and to verify that portions of the home where weatherization will occur are safe for entry and performance of assessments, work, and inspections.		
Prohibited Testing/Inspection		
Concur with DOE Guidance <input checked="" type="checkbox"/>		
Using DOE WAP H&S funds for any testing/evaluation of structural materials by a third-party is prohibited.		
Required Occupant Education		
Concur with DOE Guidance <input checked="" type="checkbox"/>	Alternative Guidance <input type="checkbox"/>	
Notify occupant in writing of structurally compromised areas.		

6.5 – Code Compliance	
Allowable Actions	
Allowed with DOE WAP H&S Funds <input checked="" type="checkbox"/>	Allowed with Alternative Funds <input type="checkbox"/>

<p>DOE funds will be used to comply with local codes in the installation of weatherization materials. Correction of pre-existing code violations in a dwelling is not allowed unless the code corrective action is required due to the installation of a weatherization measure. When correction of pre-existing code compliance issues is triggered and paid for with DOE funds, cite specific code requirements in the client file. Local building code requirements must be followed at all times. This is particularly important when installing solar hot water systems and hybrid hot water heat pump units. If the cost of meeting code compliance is excessive and beyond the allowable average cost for the efficiency measure according to the SIR, the unit should be deferred until alternative sources of funds are identified to correct the problems. Clients will be referred to other programs or agencies if necessary to bring the unit up to code. Work must meet current applicable code requirements. Work will include obtaining permits and inspection from the local building departments when required. Condemned properties and properties where “red tagged” H&amp;S conditions exist that cannot be corrected under this guidance must be deferred.</p>		
<b>Prohibited Actions</b>		
Concur with DOE Guidance <input checked="" type="checkbox"/>		
<p>Using DOE WAP funds for correction of pre-existing code compliance issues not directly related to the installation of specific weatherization measures in the home.</p> <p>Using DOE WAP funds for work on condemned properties and properties where H&amp;S conditions exist that cannot be corrected under this guidance.</p>		
<b>Required Testing/Inspection</b>		
Concur with DOE Guidance <input checked="" type="checkbox"/>	Alternative Guidance <input type="checkbox"/>	Results in Deferral/Referral <input type="checkbox"/>
DOE WAP H&S Funds <input type="checkbox"/>	Alternative Funds <input type="checkbox"/>	
Visual inspection.		
<b>Allowable Testing/Inspection</b>		
Allowed with DOE WAP H&S Funds <input checked="" type="checkbox"/>	Allowed with Alternative Funds <input type="checkbox"/>	
Visual inspection.		
<b>Required Occupant Education</b>		
Concur with DOE Guidance <input checked="" type="checkbox"/>	Alternative Guidance <input type="checkbox"/>	
Inform occupant in writing of observed code compliance issues when it results in a deferral.		

<b>6.6 – Electrical</b>		
<b>Required Actions</b>		
Concur with DOE Guidance <input checked="" type="checkbox"/>	Alternative Guidance <input type="checkbox"/>	Results in Deferral/Referral <input type="checkbox"/>
DOE WAP H&S Funds <input checked="" type="checkbox"/>	Alternative Funds <input type="checkbox"/>	
Provide sufficient over-current protection and damming prior to insulating building components containing knob and tube wiring, as required by the AHJ.		
<b>Allowable Actions</b>		
Allowed with DOE WAP H&S Funds <input checked="" type="checkbox"/>	Allowed with Alternative Funds <input type="checkbox"/>	
<p>Minor electrical repairs are allowed where health and safety of the occupant or worker is at-risk. Upgrades and repairs are allowed when necessary to perform specific weatherization measures. Typical repairs may be installing switch plate or outlet protectors, replace ceramic light bulb fixtures, or other means to eliminate exposed wiring. Repair or replacement of faulty electrical outlets for A/C, solar thermal DHW, water heater, or refrigerators is also allowable. Upgrades and repairs for weatherization measure are allowable such as relocation of electrical outlet to allow a gas dryer to be relocated for proper ventilation or proper connection of an existing water heater. Visual inspection will be performed. WAP auditors/assessors will check for alterations that may create an electrical hazard. Voltage drop and voltage detection testing are allowed.</p> <p>Since no attic insulation will be installed in Hawaii, there will be no inspection for knob-and-tube wiring. If knob-and-tube wiring is discovered, the client will be referred to other programs as this is beyond the project scope. Any electrical materials removed from homes will be disposed of per EPA guidelines.</p>		
<b>Prohibited Actions</b>		

Concur with DOE Guidance <input checked="" type="checkbox"/>		
Using DOE WAP funds for major electrical repairs as defined by Hawaii's H&S Plan.		
<b>Define "major" repairs</b>		
<p>"Major" electrical repairs are considered as serious electrical hazards, gross overloads, or electrical wiring exposure present. Auditors/Assessors shall notify the owner and document in the client's file. In such condition, the client shall be deferred to resolve such major problems prior to the installation of weatherization services, ensuring electrical baseload is within the electrical safety standards.</p>		
<b>Required Testing/Inspection</b>		
Concur with DOE Guidance <input checked="" type="checkbox"/>	Alternative Guidance <input type="checkbox"/>	Results in Deferral/Referral <input type="checkbox"/>
DOE WAP H&S Funds <input checked="" type="checkbox"/>	Alternative Funds <input type="checkbox"/>	
<ul style="list-style-type: none"> <li>Visual inspection for presence and condition of knob-and-tube wiring.</li> <li>Evaluate knob-and-tube wiring for safety prior to work.</li> <li>Check for alterations that may create an electrical hazard.</li> </ul>		
<b>Allowable Testing/Inspection</b>		
Allowed with DOE WAP H&S Funds <input checked="" type="checkbox"/>	Allowed with Alternative Funds <input type="checkbox"/>	
Voltage drop and voltage detection testing.		
<b>Required Occupant Education</b>		
Concur with DOE Guidance <input checked="" type="checkbox"/>	Alternative Guidance <input type="checkbox"/>	
<ul style="list-style-type: none"> <li>Provide occupant with written documentation of any electrical hazards identified that will not be addressed by weatherization</li> <li>Provide information to occupant on over-current protection, overloading circuits, and basic electrical safety/risks if conditions warrant.</li> </ul>		

6.7 – Fuel Leaks		
<b>Required Actions</b>		
Concur with DOE Guidance <input checked="" type="checkbox"/>	Alternative Guidance <input type="checkbox"/>	Results in Deferral/Referral <input type="checkbox"/>
DOE WAP H&S Funds <input checked="" type="checkbox"/>	Alternative Funds <input type="checkbox"/>	
<ul style="list-style-type: none"> <li>When a gas leak is found on the utility side of service, the utility service must be contacted, work must be temporarily halted, and the leak must be repaired before work may proceed.</li> <li>Fuel leaks that are the responsibility of the occupant (vs. the utility) must be repaired before installing weatherization measures in the home.</li> </ul>		
<b>Allowable Actions</b>		
Allowed with DOE WAP H&S Funds <input checked="" type="checkbox"/>	Allowed with Alternative Funds <input type="checkbox"/>	
Auditors/Assessors will notify the client's utility company and temporarily halt work when leaks are discovered that are the responsibility to the utility to address.		
<b>Prohibited Actions</b>		
Concur with DOE Guidance <input checked="" type="checkbox"/>		
Using DOE WAP funds to repair leaks that are the responsibility of the utility to correct.		
Environmental cleanup resulting from bulk fuel leaks using DOE WAP funds.		
<b>Required Testing/Inspection</b>		
Concur with DOE Guidance <input checked="" type="checkbox"/>	Alternative Guidance <input type="checkbox"/>	Results in Deferral/Referral <input type="checkbox"/>
DOE WAP H&S Funds <input type="checkbox"/>	Alternative Funds <input type="checkbox"/>	

<ul style="list-style-type: none"> <li>• Test all exposed gas lines, fittings, valves, and connections for fuel leaks from utility connection to the appliance throughout the home.</li> <li>• Test all gas appliances for fuel leaks at all connections, valves, fittings, and burners.</li> <li>• Conduct sensory inspection of all bulk fuels lines and storage tanks to determine if leaks exist.</li> </ul>	
<b>Allowable Testing/Inspection</b>	
Allowed with DOE WAP H&S Funds <input checked="" type="checkbox"/>	Allowed with Alternative Funds <input type="checkbox"/>
WAP crews should be trained on fuel leak testing.	
<b>Prohibited Testing/Inspection</b>	
Concur with DOE Guidance <input checked="" type="checkbox"/>	
Using DOE WAP funds for environmental testing of soil or water.	
<b>Required Occupant Education</b>	
Concur with DOE Guidance <input checked="" type="checkbox"/>	Alternative Guidance <input type="checkbox"/>
Inform occupants in writing of fuel leak testing results, including specific location if fuel leaks are detected.	

6.8 – Gas Ovens/Stovetops/Ranges		
<b>Allowable Actions</b>		
Allowed with DOE WAP H&S Funds <input checked="" type="checkbox"/>	Allowed with Alternative Funds <input type="checkbox"/>	
Not applicable as this is not a measure on approved priority list.		
<b>Prohibited Actions</b>		
Concur with DOE Guidance <input checked="" type="checkbox"/>		
Not applicable as this is not a measure on approved priority list.		
<b>Required Testing/Inspection</b>		
Concur with DOE Guidance <input checked="" type="checkbox"/>	Alternative Guidance <input type="checkbox"/>	Results in Deferral/Referral <input type="checkbox"/>
DOE WAP H&S Funds <input checked="" type="checkbox"/>	Alternative Funds <input type="checkbox"/>	
Not applicable as this is not a measure on approved priority list.		
<b>Define action levels for oven CO testing and resulting actions</b>		
Not applicable as this is not a measure on approved priority list.		
<b>Allowable Testing/Inspection</b>		
Allowed with DOE WAP H&S Funds <input checked="" type="checkbox"/>	Allowed with Alternative Funds <input type="checkbox"/>	
Not applicable as this is not a measure on approved priority list.		
<b>Required Occupant Education</b>		
Concur with DOE Guidance <input checked="" type="checkbox"/>	Alternative Guidance <input type="checkbox"/>	
Not applicable as this is not a measure on approved priority list.		

6.9 – Hazardous Materials		
<b>Required Actions</b>		
Concur with DOE Guidance <input checked="" type="checkbox"/>	Alternative Guidance <input type="checkbox"/>	Results in Deferral/Referral <input type="checkbox"/>
DOE WAP H&S Funds <input checked="" type="checkbox"/>	Alternative Funds <input type="checkbox"/>	
<ul style="list-style-type: none"> <li>• Hazardous Waste Materials generated by weatherization work (e.g., refrigerant, asbestos, lead, mercury, CFL lighting bulb/ballasts, etc.) must be disposed of according to all local and federal laws, regulations, and guidelines, as applicable. Costs specifically related to disposal may be charged as a H&amp;S expense.</li> <li>• Subgrantees must document disposal requirements in contract language with the responsible party.</li> <li>• <b>Limited</b> removal of pollutants that pose a risk to workers is required (e.g., flammable liquids, hazardous chemicals, and other air pollutants) as defined the Grantee’s H&amp;S Plan.</li> <li>• If removal cannot be performed or is not allowed by the occupant, the unit must be deferred.</li> </ul>		

<b>Define “limited” removal of pollutants</b>		
“Limited” removal of pollutants is defined as only removing pollutants that are necessary to perform weatherization work (oil paint cans, oil in garages, etc.) and if the pollutants pose a risk to workers.		
<b>Allowable Actions</b>		
Allowed with DOE WAP H&S Funds <input checked="" type="checkbox"/>	Allowed with Alternative Funds <input type="checkbox"/>	
“Limited” removal of pollutants that pose a risk to the occupant or worker is allowable.		
<b>Prohibited Actions</b>		
Concur with DOE Guidance <input checked="" type="checkbox"/>		
Using DOE WAP funds for Lead, Asbestos, and Radon abatement.		
<b>Required Testing/Inspection</b>		
Concur with DOE Guidance <input checked="" type="checkbox"/>	Alternative Guidance <input type="checkbox"/>	Results in Deferral/Referral <input type="checkbox"/>
DOE WAP H&S Funds <input checked="" type="checkbox"/>	Alternative Funds <input type="checkbox"/>	
Sensory inspection.		
<b>Allowable Testing/Inspection</b>		
Allowed with DOE WAP H&S Funds <input checked="" type="checkbox"/>	Allowed with Alternative Funds <input type="checkbox"/>	
Visual inspection to identify hazardous waste materials (e.g., refrigerant, asbestos, lead, mercury, CFL lighting bulb, ballasts, etc.).		
<b>Prohibited Testing/Inspection</b>		
Concur with DOE Guidance <input checked="" type="checkbox"/>		
Using DOE WAP funds for any testing for hazardous materials other than that specifically permitted in the asbestos, lead, and radon sections of this document.		
<b>Required Occupant Education</b>		
Concur with DOE Guidance <input checked="" type="checkbox"/>	Alternative Guidance <input type="checkbox"/>	
<ul style="list-style-type: none"> <li>• Inform occupant in writing of hazards associated with hazardous waste materials being generated/handled in the home.</li> <li>• Inform occupant in writing of observed hazardous condition and associated risks.</li> <li>• Provide occupant written materials on safety issues and proper disposal of household pollutants.</li> </ul>		

<b>6.10 - Injury Prevention of Occupants</b>		
<b>Allowable Actions</b>		
Allowed with DOE WAP H&S Funds <input checked="" type="checkbox"/>	Allowed with Alternative Funds <input type="checkbox"/>	
Workers must take all reasonable precautions against performing work on homes that will subject workers or occupants to health and safety risks. Minor repairs and installation may be conducted only when necessary to effectively weatherize the home. Otherwise, these measures are not allowed. WAP auditors/assessors will inform clients of dangerous and unsafe condition of the home, and will be referred to other local social service agencies if repair/replacement is beyond the project scope.		
<b>Prohibited Actions</b>		
Concur with DOE Guidance <input checked="" type="checkbox"/>		
Using DOE WAP funds for major repairs, as defined by Hawaii’s H&S Plan.		
<b>Define “major” repairs</b>		
“Major” repairs are defined as any repair exceeding the projected average cost per unit during the given program year. DOE funds will not be used to make general home repairs. Stairs, handrails, and other general repairs will not be made with DOE funds. Clients will be referred to other local social service agencies if repair/replacement is beyond the project scope. If worksite is not safe, weatherization work will be deferred until a safe work environment can be provided by the client.		
<b>Required Testing/Inspection</b>		
Concur with DOE Guidance <input checked="" type="checkbox"/>	Alternative Guidance <input type="checkbox"/>	Results in Deferral/Referral <input type="checkbox"/>

DOE WAP H&S Funds <input checked="" type="checkbox"/>	Alternative Funds <input type="checkbox"/>
Visually inspect for dangers that would prevent weatherization.	
<b>Allowable Testing/Inspection</b>	
Allowed with DOE WAP H&S Funds <input checked="" type="checkbox"/>	Allowed with Alternative Funds <input type="checkbox"/>
Visually inspect for dangers that would prevent weatherization.	
<b>Required Occupant Education</b>	
Concur with DOE Guidance <input checked="" type="checkbox"/>	Alternative Guidance <input type="checkbox"/>
If identified hazardous conditions will not be corrected during weatherization, inform occupant in writing of observed hazards and associated risks utilizing the "Hazard Identification Notification Form" required by WPN 22-7.	

6.11 – Lead-Based Surface Coverings (Paint, Varnishes, Roofing, etc.)		
Required Actions		
Concur with DOE Guidance <input checked="" type="checkbox"/>	Alternative Guidance <input type="checkbox"/>	Results in Deferral/Referral <input type="checkbox"/>
DOE WAP H&S Funds <input checked="" type="checkbox"/>	Alternative Funds <input type="checkbox"/>	
<p>DOE funds will be used for lead paint testing, site set-up, clean-up, and verification on all pre-1978 homes. Work that disturbs painted surfaces on pre-1978 housing must be in accordance with the EPA's Lead RRP requirements. All testing, job site set-up, and clean up must be supervised by a Certified Renovator and each crew member must be accompanied by a Certified Renovator. Typical work that may disturb lead paint in pre-1978 homes could include window or through wall room air conditioners. Only those costs directly associated with lead safe work practices for surfaces directly disturbed during weatherization activities are allowable H&amp;S expenses. Solar or hybrid hot water system installed with through the wall penetrations will also follow LRRP and LSW. Refer to Hawaii's Field Guide for more information on LSW practices. It is doubtful that the disturbance of paint will be affected beyond the minimum levels for these measures, but if it will, the job will be deferred.</p> <p>Deferral is required when the extent and condition of lead-based paint in the house would potentially create further health and safety hazards. If it appears that extensive amounts of lead paint will be disturbed by weatherization creating further health and safety hazards, the client will be notified that the job will be deferred.</p>		
Allowable Actions		
Allowed with DOE WAP H&S Funds <input checked="" type="checkbox"/>	Allowed with Alternative Funds <input type="checkbox"/>	
Only those costs directly associated with lead safe work practices for surfaces directly disturbed during weatherization activities are allowable H&S expenses.		
Prohibited Actions		
Concur with DOE Guidance <input checked="" type="checkbox"/>		
<p>Using DOE WAP funds for lead abatement.</p> <p>Using DOE WAP funds for purchase, resourcing, or maintenance of X-ray Fluorescence (XRF) devices.</p>		
Allowable Testing/Inspection		
Allowed with DOE WAP H&S Funds <input checked="" type="checkbox"/>	Allowed with Alternative Funds <input type="checkbox"/>	
Testing to determine the presence of lead on surfaces that will be disturbed by WAP measure installation is allowed with EPA-approved testing methods. If EPA-approved testing is not conducted, the Subgrantee may assume lead is present and work in compliance with EPA RRP rules. Job site set-up and cleaning verification is required by a Certified Renovator.		
Required Occupant Education		
Concur with DOE Guidance <input checked="" type="checkbox"/>	Alternative Guidance <input type="checkbox"/>	
Follow pre-renovation education requirements per EPA RRP rules. Where lead paint is present, clients must receive and acknowledge with signature, the most current EPA "Renovate Right" pamphlet. When deferral is necessary, WAP auditors/assessors will provide information in writing describing conditions that must be met in order for weatherization to commence.		

## 6.12 – Mold and Moisture

### Allowable Actions

Allowed with DOE WAP H&S Funds ☒

Allowed with Alternative Funds ☐

Hawaii will not be correcting any mold and moisture problems. If these problems are encountered during assessment, the home will be deferred until problems are resolved. Suspected mold or severe moisture problems will be identified, using sight and smell, during the early stages of an assessment and a determination made of the severity or extent of the problem. If the problem is too severe to weatherize the home, client will be notified, and job deferred until problem is resolved.

Limited water damage repairs that can be addressed by weatherization workers are allowed when necessary in order to weatherize the home and to ensure the long-term stability and durability of the measures. Source control (i.e., correction of moisture and mold creating conditions) is allowed when necessary in order to weatherize the home and to ensure the long-term stability and durability of the measures. Source control is independent of latent damage and related repairs. Correction of minor drainage, gutters or down spouts to direct rainwater away from the building is allowable if within the cost limitations. Installation of gutters, down spouts, extensions, flashing, sump pumps, and landscape is not an allowable cost. Surface preparation where weatherization measures are being installed (i.e., cleaning mold off window trim in order to apply caulk) must be charged as part of the ECM, not to the H&S budget category. Disposal of any material removed from the structure will be done in an environmentally acceptable manner.

### Prohibited Actions

Concur with DOE Guidance ☒

Using DOE WAP funds for mold cleanup.

Using DOE WAP funds for window and door replacements.

### Required Testing/Inspection

Concur with DOE Guidance ☒

Alternative Guidance ☐

Results in Deferral/Referral ☐

DOE WAP H&S Funds ☒

Alternative Funds ☐

Visual assessment for moisture or mold damage including exterior drainage.

### Allowable Testing/Inspection

Allowed with DOE WAP H&S Funds ☒

Allowed with Alternative Funds ☐

Diagnostics such as material moisture content, or relative humidity measurements at the audit and/or final inspection.

### Prohibited Testing/Inspection

Concur with DOE Guidance ☒

Using DOE WAP funds for mold testing of any type.

### Required Occupant Education

Concur with DOE Guidance ☒

Alternative Guidance ☐

Provide occupant written notification of identified mold/moisture hazards and information regarding the associated hazard.

## 6.13 - Occupant Pre-existing or Potential Health Conditions

### Required Actions

Concur with DOE Guidance ☒

Alternative Guidance ☐

Results in Deferral/Referral ☐

DOE WAP H&S Funds ☒

Alternative Funds ☐



During application intake or home assessment/audit, subgrantees will determine if a person's health may be at-risk and/or the work activities could constitute a health or safety hazard. The occupant at-risk will be required to take appropriate action based on severity of risk. Failure or the inability to take appropriate actions must result in a deferral. Failure or the inability to take appropriate actions must result in a deferral.

At the time of application or during the home assessment/audit, the occupant must complete a "Client Health Survey," identifying potential health issues of the applicant and all occupants of the dwelling. This survey will be inserted into the client file for future reference. The information collected during this process will be used to aid in determining the best material and course of action for the weatherization process. When an occupant's health is fragile and/or work activities would constitute a health or safety hazard, the occupant(s) at-risk will be required to leave the home during work activities. If the occupant is unable to leave the home and the intended work may exacerbate an occupant's health condition, the home may need to be deferred.

#### Allowable Actions

Allowed with DOE WAP H&S Funds ☒

Allowed with Alternative Funds ☐

Occupants at-risk will be asked to leave home during weatherization work to make sure weatherization work does not make health condition worse. If at-risk occupants cannot be relocated during weatherization work, then the home will be deferred. Training will be provided on how to assess occupant pre-existing conditions and determining course of action is required.

#### Required Testing/Inspection

Concur with DOE Guidance ☒

Alternative Guidance ☐

Results in Deferral/Referral ☐

DOE WAP H&S Funds ☒

Alternative Funds ☐

Screen occupants for known or suspected health concerns during the home assessment/audit by utilizing the "Client Health Survey" that identifies any known risks associated with the measures and materials being installed, Subgrantee point of contact information for occupants, and date of screening.

#### Allowable Testing/Inspection

Allowed with DOE WAP H&S Funds ☒

Allowed with Alternative Funds ☐

If at-risk occupants cannot be relocated during weatherization, the home shall be deferred.

#### Required Occupant Education

Concur with DOE Guidance ☒

Alternative Guidance ☐

- Inform occupant in writing of any known risks and provide pre-weatherization screening form.
- Provide occupant with Subgrantee point of contact information in writing.

### 6.14 – Pests

#### Required Actions

Concur with DOE Guidance ☒

Alternative Guidance ☐

Results in Deferral/Referral ☐

DOE WAP H&S Funds ☒

Alternative Funds ☐

Deferral of homes where infestation of pests cannot be reasonably removed or poses H&S concern for workers.

#### Allowable Actions

Allowed with DOE WAP H&S Funds ☒

Allowed with Alternative Funds ☐

Pest removal is allowed only where infestation would prevent weatherization. If the presence of pests interferes with weatherization, job will be deferred until pests are removed.

#### Allowable Testing/Inspection

Allowed with DOE WAP H&S Funds ☒

Allowed with Alternative Funds ☐

Assessment of presence and degree of infestation and risk to workers.

#### Required Occupant Education

Concur with DOE Guidance ☒

Alternative Guidance ☐

Inform occupant in writing of observed conditions and associated risks.



6.15 – Radon		
<b>Required Actions</b>		
Concur with DOE Guidance <input checked="" type="checkbox"/>	Alternative Guidance <input type="checkbox"/>	Results in Deferral/Referral <input type="checkbox"/>
DOE WAP H&S Funds <input checked="" type="checkbox"/>	Alternative Funds <input type="checkbox"/>	
Since homes will not be sealed due to natural ventilation, there will be no testing for radon. Only baseload measures will be installed which should not affect infiltration or concentration of radon in homes.		
<b>Allowable Actions</b>		
Allowed with DOE WAP H&S Funds <input checked="" type="checkbox"/>	Allowed with Alternative Funds <input type="checkbox"/>	
Clients will be referred to EPA and EPA consumer's guide to radon if they have concerns about radon.		
<b>Prohibited Actions</b>		
Concur with DOE Guidance <input checked="" type="checkbox"/>		
Using DOE WAP funds for radon mitigation.		
<b>Allowable Testing/Inspection</b>		
Allowed with DOE WAP H&S Funds <input checked="" type="checkbox"/>	Allowed with Alternative Funds <input type="checkbox"/>	
No DOE funding will be used for radon testing.		
<b>Required Occupant Education</b>		
Concur with DOE Guidance <input checked="" type="checkbox"/>	Alternative Guidance <input type="checkbox"/>	
<ul style="list-style-type: none"> <li>• Provide all occupants EPA's A Citizen's Guide to Radon and inform them of radon related risks.</li> <li>• Occupants must sign an informed consent form prior to receiving weatherization services.</li> </ul>		

6.16 – Safety Devices: Smoke and Carbon Monoxide Alarms, Fire Extinguishers		
<b>Required Actions</b>		
Concur with DOE Guidance <input checked="" type="checkbox"/>	Alternative Guidance <input type="checkbox"/>	Results in Deferral/Referral <input type="checkbox"/>
DOE WAP H&S Funds <input checked="" type="checkbox"/>	Alternative Funds <input type="checkbox"/>	
Install CO alarms in every home where alarms are not present or are inoperable in compliance with ASHRAE 62.2-2016 which references NFPA 720 (note: NFPA 720 has been incorporated into NFPA 72).		
<b>Allowable Actions</b>		
Allowed with DOE WAP H&S Funds <input checked="" type="checkbox"/>	Allowed with Alternative Funds <input type="checkbox"/>	
Install smoke alarms is allowed where detectors are not present or are inoperable. Replace functional smoke alarms and carbon monoxide alarms if they are beyond the manufacturer's stated lifetime (usually 10 years). Replace functional smoke or carbon monoxide alarm batteries if designed to be replaceable.		
<b>Prohibited Actions</b>		
Concur with DOE Guidance <input type="checkbox"/>		
Using DOE WAP funds for replacement of functional smoke or carbon monoxide alarms that are not beyond the manufacturer's stated lifetime.		
<b>Required Testing/Inspection</b>		
Concur with DOE Guidance <input checked="" type="checkbox"/>	Alternative Guidance <input type="checkbox"/>	Results in Deferral/Referral <input type="checkbox"/>
DOE WAP H&S Funds <input checked="" type="checkbox"/>	Alternative Funds <input type="checkbox"/>	
WAP auditors/assessors will test existing smoke alarms and carbon monoxide detectors for operation and age of installed safety devices.		
<b>Allowable Testing/Inspection</b>		
Allowed with DOE WAP H&S Funds <input checked="" type="checkbox"/>	Allowed with Alternative Funds <input type="checkbox"/>	
WAP auditors/assessors will test existing smoke alarms and carbon monoxide detectors for operation and age of installed safety devices.		
<b>Required Occupant Education</b>		
Concur with DOE Guidance <input checked="" type="checkbox"/>	Alternative Guidance <input type="checkbox"/>	

Provide occupant with verbal and written information on use of newly installed devices and the potential risks of not properly maintaining these devices.

## 6.17 – Ventilation and Indoor Air Quality

### Required Actions

Concur with DOE Guidance <input checked="" type="checkbox"/>	Alternative Guidance <input type="checkbox"/>	Results in Deferral/Referral <input type="checkbox"/>
DOE WAP H&S Funds <input checked="" type="checkbox"/>	Alternative Funds <input type="checkbox"/>	

Whole house ventilation and local exhaust provisions of ASHRAE 62.2 – 2016 will not be performed in Hawaii. Deferral is required for homes where both mechanical cooling is present, and the building has an established pressure boundary. Other components of ASHRAE 62.2 – 2016 such as separating air movement from attached garages and properly venting dryers will be enforced.

Deferral is required for homes where both mechanical cooling is present, and the building has an established pressure boundary. Homes must also be deferred where guidance within this plan cannot address high polluting sources, mold and moisture concerns, or the presence of unacceptable air quality as identified through sensory inspection. Homes that require work beyond the scope of this guidance will be deferred and referred to service organizations that can potentially address the identified hazard or health and safety concern. If the occupant refuses ventilation as required by ASHRAE 62.6, the home must be deferred.

### Allowable Actions

Allowed with DOE WAP H&S Funds <input checked="" type="checkbox"/>	Allowed with Alternative Funds <input type="checkbox"/>
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Hawaii homes are in Climate Zone I, are designed to have free movement of air between the indoors and outdoors, and no effort is being made through weatherization to establish an air barrier. Therefore, Hawaii's Weatherization Assistance Program is not required to meet the ventilation requirements outlined in ASHRAE 62.2 – 2016, except in any room that may be enclosed and contain a source of water or combustion.

### Required Testing/Inspection

Concur with DOE Guidance <input checked="" type="checkbox"/>	Alternative Guidance <input type="checkbox"/>	Results in Deferral/Referral <input type="checkbox"/>
DOE WAP H&S Funds <input checked="" type="checkbox"/>	Alternative Funds <input type="checkbox"/>	

- ASHRAE 62.2 evaluation to determine required post-weatherization ventilation.
- Measure fan flow of existing fans and of installed equipment to verify performance.

### Allowable Testing/Inspection

Allowed with DOE WAP H&S Funds <input checked="" type="checkbox"/>	Allowed with Alternative Funds <input type="checkbox"/>
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All homes will be assessed to determine if mechanical cooling is present, and the building has an established pressure boundary. If both are present, the home must be deferred. If neither or only one of the two conditions is present, then weatherization work may continue. All homes must also be assessed for attached garages, clothes dryers, combustion appliances (proper ventilation), high polluting sources, mold and moisture concerns, or the presence of unacceptable air through sensory moisture inspection. Where attached garages are present, they must be sealed to separate air flow from the interior of the home. Where clothes dryers are present, they must be properly vented to the outdoors. Refer to ASHRAE 62.2 – 2016 standard for full implementation requirements. Also see Combustion Gases and Mold and Moisture sections above.

Excess materials used in meeting this ventilation standard will be retained by the agency. Items requiring removal from the home will be properly disposed by WAP crews and must not be left with the client.

### Required Occupant Education

Concur with DOE Guidance <input checked="" type="checkbox"/>	Alternative Guidance <input type="checkbox"/>
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Client will be provided with information on location of service switch and cleaning instructions, function, use, and maintenance of ventilation system and components where present or installed. WAP crews will provide occupant with equipment manuals for installed equipment. Include disclaimer that ASHRAE 62.2 – 2016 does not account for high polluting sources or guarantee indoor air quality.

## 6.18 – Water Heaters

*(see Combustion Appliances for combustion related requirements)*

### Allowable Actions

Allowed with DOE WAP H&S Funds ☒

Allowed with Alternative Funds ☐

Replacement of water heaters for health and safety is allowed on a case-by-case basis. Replacement of water heaters with solar or hybrid heat pump water heaters will first be attempted through the priority list. Replacement and installation of other not related appliances are not allowed.

Hot water tanks that are leaking water, producing high carbon monoxide, or drafting poorly will be assessed for repair or replacement. Combustion safety testing will be performed on all gas-fired water tanks. If repair is not possible, hot water tank can be replaced. All plumbing work is performed by license contractors and must comply with local codes. Local agency staff will confirm installation and that unit is working properly.

Water heater repair/replacement will be performed by a licensed plumber. WAP auditor/assessor will be trained to determine if installation is adequate (hooked up, producing hot water, etc.). Disposal of appliances shall be according to the environmental standards in the Clean Air Act 1990, Section 608, as implemented by 40 CFR 82 (7/1/2006). Disposal shall be by contractor/vendor. Disposed units will be recycled when possible.

### Required Testing/Inspection

Concur with DOE Guidance ☒

Alternative Guidance ☐

Results in Deferral/Referral ☐

DOE WAP H&S Funds ☒

Alternative Funds ☐

- Visual inspection of all water heaters and related piping for safety and leaks
- See Combustion Appliances section for related combustion safety testing requirements.

### Allowable Testing/Inspection

Allowed with DOE WAP H&S Funds ☒

Allowed with Alternative Funds ☐

If serious electrical hazards, gross overloads, or electrical wiring exposure are present, the energy auditor shall notify the owner and document in the client's file. If such condition is present, the client's home shall be deferred to resolve such major problems prior to any weatherization work.

### Required Occupant Education

Concur with DOE Guidance ☒

Alternative Guidance ☐

- Appropriate use and maintenance of units.
- Provide all paperwork and manuals for any installed equipment.
- Where combustion equipment is present, provide combustion safety and hazards information including how to recognize depressurization, dangers of CO poisoning, and fire risks associated with combustion appliance use.

## 6.19 – Worker Safety

### Required Actions

Concur with DOE Guidance ☒

Alternative Guidance ☐

Results in Deferral/Referral ☐

DOE WAP H&S Funds ☒

Alternative Funds ☐

Adherence to all federal, state, and local worker safety regulations (e.g., OSHA, EPA).

### Allowable Actions

Allowed with DOE WAP H&S Funds ☒

Allowed with Alternative Funds ☐

Since Hawaii’s Weatherization Assistance Program mainly installs baseloads, subgrantees’ auditors/assessors perform initial assessment, install baseloads, and perform final inspections. Installation of solar hot water systems and hybrid heat pump water heaters will be done by contractors. Room air conditioners and refrigerators are delivered and installed by vendors. Old units are disposed of by vendors per EPA guidelines. Workers must follow OSHA standards where required and take precautions to ensure the H&S of themselves and other workers. OSHA Confined Space requirements will be followed as applicable.

Equipment purchases to protect the health and safety of the worker (e.g., Personal Protective Equipment (PPE), jobsite cleaning supplies).

<b>Prohibited Actions</b>	
Concur with DOE Guidance <input checked="" type="checkbox"/>	
Using DOE funds for major repairs as defined by Hawaii’s H&S Plan.	
<b>Define “major” repairs</b>	
“Major” repairs are defined as any repair exceeding the projected average cost per unit during the given program year.	
<b>Allowable Testing</b>	
Allowed with DOE WAP H&S Funds <input checked="" type="checkbox"/>	Allowed with Alternative Funds <input type="checkbox"/>
Environmental and surveillance testing required by OSHA regulation.	

6.X – (Insert Additional H&S Items for Use of DOE WAP H&S funds)		
<b>Required Actions</b>		
Concur with DOE Guidance <input type="checkbox"/>	Alternative Guidance <input type="checkbox"/>	Results in Deferral/Referral <input type="checkbox"/>
DOE WAP H&S Funds <input type="checkbox"/>	Alternative Funds <input type="checkbox"/>	
Insert required item text		
<b>Allowable Actions</b>		
Allowed with DOE WAP H&S Funds <input type="checkbox"/>	Allowed with Alternative Funds <input type="checkbox"/>	
If DOE WAP H&S Funds are used for any “allowable” actions, detail them here.		
<b>Prohibited Actions</b>		
Concur with DOE Guidance <input type="checkbox"/>		
What is prohibited		
<b>Required Testing/Inspection</b>		
Concur with DOE Guidance <input type="checkbox"/>	Alternative Guidance <input type="checkbox"/>	Results in Deferral/Referral <input type="checkbox"/>
DOE WAP H&S Funds <input type="checkbox"/>	Alternative Funds <input type="checkbox"/>	
Insert required item text		
<b>Allowable Testing/Inspection</b>		
Allowed with DOE WAP H&S Funds <input type="checkbox"/>	Allowed with Alternative Funds <input type="checkbox"/>	
If DOE WAP H&S Funds are used for any “allowable” testing, detail them here.		
<b>Prohibited Testing/Inspection</b>		
Concur with DOE Guidance <input type="checkbox"/>		
What is prohibited		
<b>Required Occupant Education</b>		
Concur with DOE Guidance <input type="checkbox"/>	Alternative Guidance <input type="checkbox"/>	
Insert required item text		